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THE MIND OF THE CITIZEN¹

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THE BURDEN OF PROGRESS

One of the most used words is "problem." There is the problem of city government, of taxation, of immigration, of pure food, of education, of the liquor traffic, of the judiciary, of direct legislation, and many others. Modern civilization presents a snarl of problems.

There must have been plenty of problems of old, but the people did not always define them. Many issues have been hatched by modern conditions, such as changes in industry and transportation and growth of population. Moreover, with greater general enlightenment society has become self-conscious, for intelligence has a revealing power. The discovery is made that social relationships are not all they should be, and reform is undertaken.

Making the world over is new business and new business is difficult. We can scarcely say that people are prepared for it, for a large part of the development of society has heretofore been as free from foresight and conscious direction as has the evolution of the society of bees and beavers. Much of our present order has been brought about by mere force of circumstances, by an

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impromptu unwinding of events which men have barely understood, let alone directed. There has been little anticipation of social outcomes or attempt to substitute planning in place of evolution. Society has arrived at its present organization largely without knowing why or electing aims; it has gone forward in some such way as the individual grows up, his vital processes taking place in the absence of intention or understanding.

But this is changing. Society consciously seeks social ends as truly as the individual seeks personal ends. Conditions have so changed that the individual, in order to get what he wants, must combine his efforts with those of others. A revolution in economic, industrial, and commercial relationships compels the individual to make common cause with others, leads him to look at life from a social viewpoint, and causes social questions to demand the expenditure of more and more mental energy. The social machine is complex. Physical force will not operate it. The man who got along in the twelfth century by using his fists now has to use his head. Thought rules, and it is only by study that social ideals may be realized or that individuals or groups may protect themselves in a noiseless warfare in which the most dangerous enemies and devouring opponents may be as invisible as germs.

To accomplish ends through social machinery is a real intellectual feat. Political and social science as a branch of learning is not easy to grasp. There is perhaps no kind of subject-matter which taxes the mind more severely. A high degree of culture is required to enable one to understand the movements and issues of the times. The intellectual requirements for capable citizenship, for ideal citizenship, are exacting. Now the mind which is available for the conscious direction of society was shaped under a different set of conditions than those prevailing in the modern world. Hence we find individuals who would be highly effective in a physical struggle or in contesting with nature for subsistence but who are at a loss in an environment so new to the race. Everywhere there is evidence of a bewilderment. There is little agreement among specialists in political science. Social engineering tests the capabilities of the human intellect. A singular confession of weakness is that represented by the action of the Senate at

Washington in voting to reject the annual contribution of \$250,000.00 from the Rockefeller General Education Board, which had been used for farm demonstration work and the extermination of the boll weevil. A senator declared that that money was covered with "the blood of women and children shot down in the Colorado strike." This incident brings out in strong relief the futility of legislation, for it should have been possible long ago to curtail centralized wealth to which such abuses are ascribed. Legislators appear strangely limp in dealing with conditions whose evil results are denounced on every hand. Of thirty-two acts of parliament, Herbert Spencer found that twenty-nine produced effects opposite from those intended. The utterly diverse views of public men indicate that social administration is a problem out-topping the average of ability.

In the last analysis the reasoning capacity of the individual is called in question. Ours is not a race of super-men, and mental limitations enhance the difficulty of making headway. Consider the fact that we have to "study" to understand. If a novice could sit down with Euclid and in an evening know geometry! It takes weeks and months of painful concentration to master a branch of learning represented by books which could be read through in a few days, so narrow is the gateway to understanding. Man is a reasoning animal, so it is said, though in discussions regarding the power of animals to reason some scientists hold that not only do animals not reason but that very few human beings reason. Men reason not from choice but from necessity. Reasoning occurs when a situation cannot be successfully dealt with in some other way, as by imitation, habit, or memory, or by getting someone else to do it. But oftentimes the pinch of a situation, instead of evoking reasoning, will call forth a futile deluge of emotion, and the citizen will—swear. We hate to think; we avoid it if possible; we think only under pressure, and not always then.

The reasoning faculty in its fulness develops late in the individual, and on the other hand may disintegrate in the closing years of life; it is first to be disturbed by alcohol, sickness or fatigue. The freshest hours of the day are required for work that involves the nice balance of logic. We hesitate to attack problems, and

gladly defer consideration to the next day of those matters that call for vigor of thought. Frequently people will exhaust every means of dealing with a difficulty except that of reasoning, and persistently try to flank a situation that might be resolved by direct mental exertion. The tendency is to rely upon the lower mental processes.

Concepts and principles, with which reason deals, are products for which the mind has less affinity than for objects. The vastly greater appeal of the objective is attested by a thousand evidences. The concrete is popular, while the abstract is synonymous with dryness and difficulty. A speculative exposition or a dissertation on principles repels all but a few, while satiating and repetitious concreteness attracts a multitude. But it is the concept and the principle that are of chief significance, for they represent meanings. Thinkers are characterized by grip of abstractions and the ability to pursue a generalization, undisturbed by the swollen floods of concreteness. In reasoning, meanings rather than forms engage consciousness and for it Plato held that but few were fitted by nature.

A good imagination is the basis of reasoning and a trait of infinite significance for social betterment. But what of its prevalence? The mere restoration of a past experience is common enough; vivid recollection of something actually experienced is indeed characteristic of children, and "narrative old age" employs the almost photographic images of earlier years, but a constructive, original, penetrating, and interpreting turn of mind is a different matter. Otherwise it would not take a third of a century to secure even partial realization of the trust issue or of the meaning of watered stock.

Many evidences of the failure to see the significance of facts will occur to one: the young married woman who laughs at the spectacle of a drunken man on the street; the teacher who uses uncomplainingly a textbook containing a picture of a rooster on a cannon; the working-class mother who is pleased when her son joins the national guard; the farmer who does not distinguish between his labor income and the income derived from his money investment, who "buys a job"; or the young English woman who

expects to tour the United States in three days, not thinking it so "frightfully large." And is it not usually the case that one is much more concerned about the loss of a shirt stud than of a hundred dollars abstracted from the family income by invisible but real tentacles? The absence of ideal conditions is little noted if the familiar is found in place. If the man lower down had the gift of vision would there not be new chapters in history? Here and there are those who image the advantages of other status or penetrate mentally into the monstrous mushroomism of privilege or follow with the mind's eye the play of social and economic forces, but can it be assumed that actual realization of harmful conditions is at all usual? Is not invisible evil effectually protected by lack of vision? It is still vastly more heinous, because more objective, to steal a horse than to steal a franchise. The fact that the mind tends to adhere to objects of direct acquaintance, making a little world out of the materials within the sweep of the eye and less frequently rising to a stage from which the larger world may be surveyed, is fateful with reference to the rational ordering of a better civilization. Constituents are proudly triumphant when their representatives force through a bill compelling railroads to bulletin the time of arrival and departure of trains, but are not particularly curious as to the relation of freight rates to the cost of living; women highly, if not well, educated oppose suffrage from inability to represent to themselves the various situations in which a voter's power affects their interest; politicians find that temporizing often wins over statesmanship; omission and inefficiency make far less impression than the unimportant overt act; a scientific management and the avoidance of waste are long delayed. Ever the tangible reality of the moment rather than the greater reality of the ideal moves men.

Indisposition to think and the circumscribed field of imagination are significant, for in social administration the power of generalization and logical sequence is much engaged. The usual sciences are actually more simple than the knowledge with which the voter, ballot in hand, is presumed to be acquainted, the science and philosophy of society. In fact the belated development of sociology and allied subjects may be taken to mean that social phenomena

are reduced to system only with unusual difficulty. Anthropology, social psychology, civic theory, and economics deal with elusive and thought-taxing materials. Governmental issues cannot be wisely dealt with on the spur of the moment. To know the nature of the task of imposing intelligence upon the social order is to recognize the need of a more intensive study than is common. Serious discussion, one subject by this group, club, or coterie, and another topic by others, is needed, each to arrive at a degree of expertness, each to contribute to a common fund of thought. The absence of insistent inquiry and discussion among the people is a source of political weakness, for men elected to office reflect the common attitude and are circumscribed by prevailing conditions of insight and interest. The average voter needs to be convinced that unless he studies issues he will be unprepared to deal with them; he needs to study his lesson. Government is a matter requiring downright application on the part of citizens. Political questions must be framed for discussion, terms defined, and time devoted to the study of principles. Civic welfare cannot be achieved with a general avoidance of strenuous mental effort, and with a spatter of attention and a lust for amusement to fill every free hour.

The faulty management of public business raises a question in some minds as to the possibility of successful collective enterprise. It is doubted whether the people are capable of sustaining consciously a far higher social organization. When one tyranny is overthrown, it is argued, another will rise in its place. There is implied in many quarters the view that the people collectively are inadequate for perfect self-government and for achieving a genuine community welfare. "Things will not be any better than they were before" is the melancholy comment on programs of reform.

The answer is education, an education that centers on thinking. And as one cannot think unless he has materials with which to think, it is important that there be provided specific thought-materials bearing upon the evolution of the state. There is need of a subject-matter compounded of biological, historical, scientific, and evolutionary data the upshot of which would be a grasp of

underlying social principles. More need an acquaintance with the kind of material found, for example, in the works of Spencer, John Fiske, David Starr Jordan, Metchnikoff, Haeckel, Karl Marx, Darwin, Alfred Russell Wallace, Henry George, Lester F. Ward, and Prince Kropotkin.

The culture required for social ends receives too little attention, due in part to the prevailing enthusiasm for training for salaried employments. As a result there are engineers and chemical experts who are not interested in politics. Technological preparation is often a mechanizing process which in adapting for a necessary function widely deflects consciousness from social issues.

Nor is the student of ancient history and literature, of the time-honored classics, necessarily well equipped for the coming nation. He possesses, indeed, the advantage of contact with the best minds of the past; he has associated, not with groundlings and slaves, but with masters—Caesar, Xenophon, Marcus Aurelius. A certain aristocracy of associations is thus established, and it is not to be wondered at that the early American clergyman, lawyer, and public man approached life from a high plane and carried a dignity derived from the stately and poised spirit of classical letters, essays, and orations. Horace and Cicero were good consumers, and slavishness did not infect the underfed and impecunious student of early Dartmouth or Amherst. Fresh from the upper-caste associations of Virgin or Lysias, the early American college student was keyed high and was notably rich in historical ideals, though perhaps walking the streets of cities in poverty without the collateral of skill.

But the very fascinations of the classics lead to a certain disqualification; the view is backward, and the enthusiasm of youth becomes attached to a gloried past. And the mind nourished on prescientific literature cannot take quick offense against pseudoscience. Not that the Apollo myth or the prowess of Beowulf are really credited, but there exists a haze not conducive to realism. The classical scholar tends to be but partially scientific, from the permeating influence of ancient misconceptions. The need of instruction actually clarifying mental processes—even the need of

educating the educated—may be inferred from the fact that “sucker lists” are compiled from college catalogues.¹

A type of education which would avoid the dubious qualities in classical subject-matter and the isolating and mechanizing effects of occupational instruction is needed. The ideal society cannot be formed of men whose interests are no wider than money-making, nor of men whose instruction has incorporated into their outlook a mythological squint which exposes them to the patent medicine vendor or causes them to look upon nations as big personalities, rather than, as Chancellor Jordan remarks, jurisdictions. What tendencies to exaggerate, to hope unduly, to misread evidence, to exalt intuition, to obtrude emotions, to idealize animals, and to personify property or cities are not bound up with an intellectual nurture based on the age of fable! When the small boy says that the luck has gone out of a trinket which he carries about with him, and when in a single day in Chicago 25,000 people gather about a miraculous shin bone, the need of intellectual reorganization is evident.

Clarifying and disillusioning instruction is needed with regard to social organization. Undue veneration for constitutions implies a misguided study of history; for the men who framed constitutions, so far as not merely responsive to special interests, were attempting no more than the people of today attempt in dealing to the best of ability with the problems of the hour, and that any particular

¹ The following clipping from the *Chicago Record-Herald*, of February 11, 1913, speaks for itself:

“SUCKERS” ALL COLLEGE MEN

Hawthorne Case Witness Tells Where He Got 700,000 Names

NEW YORK, February 10—The so-called “sucker list” of mining companies promoted by Julian Hawthorne, Josiah Quincy, Albert Freeman, and Dr. William J. Morton, who are on trial for alleged fraudulent use of the mails, was compiled from 400 college catalogues and contained 700,000 names.

Freeman so testified today under cross-examination by government counsel. He identified a check for \$20,000.00 as one of his own and said it was drawn to cover the expense of making the list of names of persons to whom literature was sent.

Testifying as to the cost of printing circular letters sent out, Freeman said: “I did not care how much I paid if the letter was perfect. But the trouble was to get the different names put into the letters in such a way as to make those who received them think they were personal letters from Hawthorne and not mere circulars. I sent out fully 700,000 of those letters.”

authority attended the deliberations of early publicists, in excess of that attributable to the latest session of a legislature, is no more credible than that the impressions of today should be imposed on the public of a century hence.

The educational system suffers an underdevelopment, for it is responsive rather than dominating. Institutions of learning tend to conform rather than to form, and the seal of approval is placed on unregenerate ambitions and the ethics of disorderly competition. Young men who should be in a spiritual kindergarten, whose conversations are crude and gossipy, and whose reactions to quality are wondering skeptical, are released at graduation certificated if not refined. The vices of the street—"clamorous insincere advertisement, push, and adulteration"—may possess the graduate as well as the entrant, and the aim of a department may be colored to the purpose of the crafty student who would equip himself to make "a heap of money" by overcapitalizing electric-lighting plants in small towns which in all ethics should be taught how to manage their own public utilities. The educated man should be by that fact a prophet, not paramountly a profit-seeker.

Within the total body of knowledge there exists an enormous quantity of material which is inert or irrelevant. It is a serious dissipation of energy that youth should devote years to a relatively inconsequential learning. The good general repute of knowledge has thrown the mantle of approval over types of learning which, considered from the point of view of a dynamic society, represent a deadening load upon the factors making for progress. Often one hears it said that a given person or a certain class is "well educated," there being no distinction made between highly educated and well educated; whereas there is all the difference in the world between the two conditions. Many great scholars have been very highly, and at the same time very poorly, educated, when regard is had to mental content. Certainly no very extensive improvement in brain capacity has occurred since the middle ages or the days of Diocletian, and whatever of human weal has been achieved for the present as against former periods is to be referred to mental content rather than to increase of brain cells and spread of cortex.

Too much emphasis can hardly be placed upon the actual character of the information which society permits to circulate or deliberately diffuses through agencies under state control. The substitution of valid materials for those not meeting the most searching tests of value must occupy the foreground of effort for social betterment.

If there is a wide range of values in real knowledge, how significant becomes the toleration of pseudo-science! Error obtains widely, and indeed a certain conventional respectability attaches to quantities of traditional material which any scientist knows could not bear scrutiny. Much of this is so knit up with emotion that scholars plow around it rather than risk the consequences which a too fearless opposition would entail. Hence it is that verified knowledge and pseudo-science may achieve a considerable circulation in the same community, the one to a degree undoing the work of the other, but with no joining of issue and thorough enlightenment. There is an immense circulation of worthless reading matter, ranging from dream-books and drugstore almanacs to pulpy fiction. The church would do well to inspect closely the materials which are placed before millions, often as their almost sole mental food, and should not be unaware of the possibility of benumbing intelligence by forever having over points of doctrine or the minutiae of Jewish history. One may listen attentively yet unprofitably.

The practice of systematically misinforming children cannot be too strongly condemned. Parents allow their children to be taught matter known to be misleading. The presentation of myths and attractive falsifications befogs the child's mind and contributes to the permanence of a public expecting to meet with the fountain of youth in the decoction sold for "a dollar a bottle." The strange case of mythology and actual science in the same mind may be due to the it-is-so and it-isn't-so duplicity of the make-believe literature on which children are nourished far into the age of reasoning.

A great gain will have been made when there is a more general realization of the importance of building up an effective civic mind. The social outcomes of various types of cultural material and of training deserve consideration. Especially is it important that

there should be convictions regarding the scientific character of social questions. A function logically requiring the highest devotion and insight—government—is too often given over to men who are not grounded in appropriate learning, and the citizen himself too often lightly dismisses civic obligations which should set him to burning midnight oil.

SOCIAL INERTIA

Progressive movements are held severely in check by accumulated habits and customs. As one grows older he becomes, unless under unusual conditions, firmly set in feelings and views. Habits tend to grow into the very constitution, and represent a force whose power is experienced whenever a new idea is introduced in the world. Repetition of movements and of thoughts results in fixed arrangements of the brain cells. The grooves of thought become deeply worn, and the mind comes at last to resemble in definiteness of character and permanence of structure the physical body which supports it. It is the exceptional person who keeps green at the top, and who remains in sympathy with dynamic phases of society.

The paths of thought are greatly influenced by one's surroundings. Not without cause do we wish to know where the individual came from, who his parents were, where he went to school, and what his occupation is, and our curiosity extends to his wife and children. The ethical atmosphere which one has known, combining elements from many sources, essentially determines interests, outlook, and opinions. The individual is to a great extent a composite of the ideas which environment has forced upon his attention. Differences in native ability are apparently less determinative than those resulting from the complex of suggestions associated with one's place of residence, acquaintanceship, and social contacts. The to us strangely inverted views and practices of alien peoples, ancient or modern, are none other than we ourselves, transferred to other environment, would have approved. The culture materials of the Kentucky mountains and those of a northern city are respectively instrumental in creating most diverse types. One cannot escape the pressure of environment. Even the greatest minds are a reflex

of their age, sharing in contemporary attitudes and errors; Pascal believed in French miracles and Sir Matthew Hale in witches.

Especially do first impressions last. The importance of a fifty-cent jackknife to a boy sinks deep into the emotional nature, and men of means will flinch at the expense of a new pocketknife in unconscious revival of emotions of childhood. Stamped with the forms of religion, language, or manners as a child, one can never be fully freed from either their good or bad features. The negro who was invited to sit with his white employer at a dinner in the South, but at the table trembled with fear, gave evidence that legal emancipation did not carry with it emancipation from the psychology of slavery. Pronounced radicals exhibit on occasion the awe which undemocratic centuries have bred into the emotional life. One brought up to refrain from gladness on Sunday may convince himself of the acceptability of tennis on that day, but may experience difficulty in bringing his feelings into accord. Not readily do sentiments and prejudices, reverences and submissions disappear. How rare it is for a community to change its feelings to correspond with the development of one of its gifted sons or daughters; hence a prophet is given scant honor at home. For which reason discerning youths go to new parts where there is exemption from the levity of reminiscence.

The persistence of habit and the inertia of custom are everywhere to be discerned. Sudden transformations are rare. Though terms change, realities abide, as witness pagan gods succeeded by saints as numerous, feudalism transferred to industry, and the fetishism of the elk tooth. Writing of the Incas, James Bryce notes that the Spaniards abolished human sacrifices—and burned heretics.

Without special efforts to change habits, or the supplying of conditions which enforce new ways, the probability of considerable changes in social orderings is slight. People will go on in the same old ways, and it is the next generation that is the principal hope of those who strive for change. Laws influence society but slowly; they are rather the reflex of states of mind than actually agencies of social transformation, and it is to educative factors that attention should especially be given in reform. A weakness of the older socialism was its disregard of the persistence of habit, showing in

the ten thousand enmeshing sentiments of the static multitude. Writers still imply the possibility of a sudden redirection suggestive of the "conversion" of the religious revival, which itself is far from being a comprehensive change. Inertia is an outstanding trait of primitive peoples, whose characteristics obtain in no small portion of modern society, and a trait, as well, to be reckoned with in individuals more advanced.

The threat of revolution can never be more than partly executed, for in the greater number of relations the individual will continue to be as he was before. Those who have been servile will continue to be servile. Under the older system of family discipline the youth looked forward to becoming of age, only to find when he arrived at that time that both docility and authority persisted. In fact, the only social revolution which seems possible in view of the tenacity of habit is one which slowly proceeds under the pressure of conditions and is directed by strong leadership. There was never yet a revolution or emancipation which was true to the full vigor of the term. For sharp social advances shock and surprise, and the dislocation of environment is required. If psychology has a message for progress it is that efforts must be focused upon the disorganization of old and in turn the establishment of new habits.

Actual contentment under unfair conditions may exist through the spell of environment. One becomes so used to things as they are that the prospect of change is unpleasant. The farmer's mortgage becomes part of his cosmos. Conditions which would appear most singular from a fresh point of view come under the principle of habituation and scarcely attract attention. Improvement means change and confusion, the rupture of accustomed ways and adjustment to a new order, and it is bewildering to face new conditions, even if theoretically better; hence the inevitable reaction which follows a mood of reform and the slight immediate response made by the mass of mankind to idealistic appeals. Privilege and exploitation, parasitism and humbug, are relatively safe when rooted in the old order. To look at such in a new light would be their extermination, but it is not usual to look at things in a new light.

A popular weakness is susceptibility to undemocratic emotional attitudes. It is a well-known fact that one's reason and emotions may not agree perfectly, and that feelings are likely to be the deciding factor. Our feelings have been gathering force since early childhood, while our arguments may be of recent acquisition. A substantial fund of emotion comes down to us by tradition from far absolutist régimes; we are early infiltrated with archaic sentiments from a thousand points of cultural contact. As a result democratic attitudes are less prevalent than democratic opinions.

"And your petitioners will forever pray" these words appearing at the close of a legal paper are redolent of sociology. While phrases of courtesy have a place not to be lightly surrendered, this form points to a former social order in which power did not flow from the people to officials but on the contrary favors were from the rulers "vouchsafed unto us." The awe which does hedge about "his honor" is perhaps not so much an expression of respect for the law—for laws are abstractions—nor deference to one's self, the voter who elects judges and builds courthouses, but more likely a mood which comes to us by relayed example from the days when civic humility worshiped at the feet of kings. We believe that our officials derive their powers from the consent of the governed—help thou our unbelief! For while we believe we may yet feel otherwise. One dictates to a stenographer a letter to his servant, the congressman, and finds that the dictated formal close, "Yours very truly," has come under the pervasive influence of inherited deference to office and reads instead "Very respectfully," which is indeed better than "Your obedient servant." And the salutation of "Dear Sir" is supplanted in the process of transcription to the self-conscious and formal "Sir." Of course it is the congressman who should address the voter, by whose consent he exists, with the prostration of phrase which creeps into the voter's letter to him. Men of toil come upon the campus of a state university, their institution by right of taxes, hat in hand, instead of in the consciousness of owning the place. Truly, for lack of what meat does the citizen remain so small!

The timidity of the public in pressing claims against corporations seems to be founded on traditions of servility. It seems

almost like interfering with the course of the planets to compel a railroad company to stop a long train at a mere county seat, and when a citizen tells the president of the road a few human facts staid residents get their heads together in a certain consternation. Walt Whitman in a memorable poem justifies man to the bigness of material things, like great machinery and buildings, trampling them under foot of a forced accession of self-respect. But it requires no little temerity to lay the ghost of mere bigness, and the lowly spirit of the peasant uncovered before authority still lives to a degree.

Yet men desire to be as good as other men—or a little better—and if defeated and humbled by others' huge success, resort may be had to the theory of compensation. So-and-so is rich, but his home is childless; he visits Europe, but he has arteriosclerosis; he has a beautiful residence, but he is not happy. Social evolution would move more swiftly if once for all the supposed compensations of misfortune were subjected to actual observation, and the fact frankly recognized that some conditions of life are better, immeasurably better, than others. A fatalistic doctrine of compensation disposes one to bear those ills which under a different philosophy he would flee or fight. When one secures a benefit he does not thereby release the lever of a correlated misfortune.

Possibly the conventional doctrine of compensation is related to limitations of experience. Habituated to salt and potatoes, the individual denies the advantages of mutton chops. The benefits of travel come to be seen obliquely, because travel cannot be afforded. The grin-and-bear-it attitude becomes confirmed into a religious devotion to hardship. Misfortunes thus undergo an apotheosis into blessings, and happiness is expected not to last; there are "terrors of cloudless noon." Moreover, the great mass of mankind have had meager experience as consumers, and therefore the upper ranges of life are seen in false perspective, which fact gives color to compensation. The development of suitable wants throughout populations is accordingly preliminary to democracy. In fact, not until mere maintenance ceases to absorb the major portion of one's efforts may the possibilities of human nature be realized. At the very basis of social inequality is an ancient cringing spirit and a time-honored glorification of suffering.

A vast kingdom of inherited fears and deferences, of shadowy evasiveness yet substantial reality, prevails, especially in older societies. The error of not "knowing one's place" thus becomes obnoxious, and the particular merit of the great English public schools, regarded from the aristocratic point of view, has been that through "fagging" the boy was taught to know his place, a subtle social system of distinctions thus being fortified by training. The shocking nakedness of communication in the western states implies by contrast the traditional deference which exists in older communities for academic, political, or economic status. Prevailing sentiments of deference are very often inappropriate, and a rational skepticism of conventional attitudes is warranted. Lack of intelligent unrest and challenge lies at the basis of backward conditions. As one measures himself so is it meted out to him. Development toward democracy requires a stimulation of personality and the charging of individuals with ideals of larger attainments. To preserve fairly even conditions in a population requires watchfulness against an invidious conventionality.

Oftentimes conventional attitudes are singularly at war with what facts warrant. Consider the social prejudice against basic productional occupations. The honor accorded arms is something of an anachronism when the world is held back from peace only by false ideals. The most toilsome and necessary labor is not recognized as meriting special approbation, while predaceous wealth is never without distinction. All degrees of respectability prevail in modern employments, to a large extent based upon inappropriate considerations. All necessary forms of work should be held alike worthy, and the performance of disagreeable and dangerous tasks deserve special commendation.

Traditional conceptions as to who deserve credit for wealth production, coupled with a certain obtuseness with reference to the fact that society overtly or tacitly fixes incomes, give rise to astounding overpayment and underpayment, to a most unscientific scale of remuneration. A degree of imagination is required to see things in their true light, in default of which nothing appears surprising. Social conditions are so largely a reflex of prevailing states of consciousness that to change conditions is first to change

minds. The cherishing of economic tradition by those who would most profit by a new outlook, the possession of the "capitalist mind" by the expropriated, is a singular obstruction, only to be accounted for by the static condition of intelligence which prevails when not guarded against the domination of custom and an excess of habit.

A consideration of the force of environment gives a clue to the extreme significance of new surroundings; change of environment provides a multitude of suggestions resulting in new methods and ideals, but is especially important in compelling, through the rupture of habit, the reasoning reaction. Men's minds tend to conform to their immediate surroundings as truly as the color of the fur of a prairie dog to the dun expanse of its semiarid habitat; there is thus an underlying quality in the intellectual processes which relates *homo sapiens* to the birds in the tree and the imitatively colored larvae which coat its leaves. As the inherited powers and instincts of man are in a large way the reflex of the requirements made upon him through unmeasured prehistoric time, so the thought of the individual of today is in direct response to the features of his environment. If environment is easy, little mental effort will be exerted, but if the individual is placed under exacting conditions whose demands cannot be met by memory, habit, or impulse, then activity is forced upon the reasoning powers.

To supply the conditions which compel development new environment is effective. One is rarely acquainted with his own capabilities until he is thrown upon his own resources through some dislocation of his habitual setting. We are full of surprises to ourselves, the tug of effort to effect a new adjustment being the prerequisite of disclosure. One may believe that he is making the most of himself in a given place in the world, but upon being subjected to fresh demands he may feel with the character in Mark Twain's *A Double-barreled Detective Story*: "Duffers like us don't know what real thought *is*." To suitably precipitate upon one thought-provoking requirements, the importing of new elements into one's daily order, or the bodily transference of the individual to different surroundings, is necessary.

Evidence of the part played by change of surroundings in stimulating intelligence may be gathered from various historical occurrences. The England of Shakspeare was convulsed with the realization of a new world—imagine what would be our reaction if communication were established with a race on another planet! Under the law of shock new intellectual manifestations appeared in the Age of Elizabeth, of which an invigorated drama and an unwonted bouyancy of phrase were a normal expression. Unfortunate the age that has no new worlds to discover or no thrilling vision to provoke the creative spirit!

The shock of the frontier resulted, in the case of the American people, in a remarkable burst of initiative, resourcefulness, and idealism. The patent office at Washington, which bears witness to an inventiveness unique in the history of the race, is evidence of the stimulating effects of a new environment. In New Zealand, likewise, where within memory the cannibal Maori feasted on "long pig," the response to new demands is to be read in laws which are wisely imitated in older countries.

It is ever the emergency-meeting race or individual that generates progress; static conditions tend to reduce mankind to a set of fixed reactions, whose insidious approach may be noted in the unprogressiveness of old communities where the leading citizens have hung their hats on the same hooks for forty years. Likewise in the iron environment of cities, where, especially among clerical and commercial employees, may be found signal provincialism, there is ample illustration of the dangers of routine. To one who has not the means to travel, to occupy the same house or apartment for a long time is unfortunate, and occupations which have a migratory character contribute in no small way to the yeast of civilization. The automatism of fixed conditions and the approach to a moribund zone were unwittingly illustrated in the reply of a denizen of a torpid village when asked if he expected to be buried in the local cemetery; he replied, "Yes, if I live!" The tendrils of sentiment twine more closely indeed about the familiar, and there is a tragic note in the snapping of ties, but the law of human evolution reads that only by the advent of the strange may welfare be won, and the pains of readjustment are less to be feared

than the corruption of habit. Any Utopia which left no channels free for the forces which break habit and thrust upon society the urgent need of solving new problems would, after the first fruits of system were garnered, tend toward stagnation.

With the passing of frontiers and the rapid filling in of the inhabitable empty areas of the earth, with the question of habitability still pending as regards the enormous and fertile *selvas* of Brazil, and parts of Africa, the problem of environment takes the form of other means to insure the individual such thought-taxing situations as will result in progressive mentality. In some phases of modern life there seems to be a letting down of insistent requirements. It should not be necessary to return to the primitive in order to stimulate initiative and circumspection. It should be permissible to turn a tap rather than wade through snow to a pump for water, but unless there be requirements which fairly equate with the pricking rigors of a less conventionalized life we need have no doubt as to the results—degeneracy will appear. Notwithstanding the complexity of life today it is doubtful if it represents, so far as the separate individual is concerned, the complexity of demand of earlier conditions. The total social mass is complex, but the individual may—indeed, typically does—find that his daily requirements, especially in urban employments, entail but slight resort to constructive ideas. “All you have to do” in many positions consists of a narrow range of mechanized tasks apportioned under a business system which makes independence impertinent. The great mass of employees today are following orders, with not enough participation in the problems of the occupation to provoke thought. It is a misfortune to be connected with an enterprise where the individual is not weighted with all the perplexities necessary to tax the association centers of his cerebrum. A single day of camping out will perhaps raise more problems than months of routine occupation.

In individual cases the transforming effects of a change of place or occupation are often to be observed. An elderly east Tennessee farmer moves his family to western Washington and takes up a different type of agriculture, with the result that by a decade later he has “renewed his youth,” gained an evident adaptability,

and multiplied his interests. The arrival of the first baby of middle-aged parents results in a rejuvenation and development directly traceable to dealing with the enigmatical creature. If the Supreme Court were never to hold two sessions in the same room, a more modern atmosphere would no doubt attach to its deliberations. Even a change of clothes has its developmental aspects.

The misfortune of failing of a shift in associations is to be noted in the cosmic quality of views and feelings characteristic of classes that but slightly change environment, being rooted to place, as in the case, historically, of the peasants of the Old World. In the recent revolution in Portugal, from which ancient kingdom the late monarch left "without leaving his address," it was the agricultural classes that opposed change. And indeed in America, among the stationary farming class, there has been at times the political apathy which is likely to appear wherever movement and new surroundings are least experienced.

The equivalent of the stimulating effects of new scenes may largely be duplicated by importing into one's usual environment new elements. The progress of recent years has coincided with the growth of reading habits and the breakup of static local conditions; at first, to considerable degree, by the advent of the bicycle, and later by the trolley, rural free delivery of mail, and the automobile. A steady influence making for adaptability is represented in the social center in both city and country, where an exchange of ideas results in the formation of fresh opinions. Education, reading, conversation, the theater, marriage, and sickness are meaningful variations of environment.

But especially among the agencies to which we must look for establishing adaptability and resourcefulness are those which bring about change of residence. Travel has an important function to this end. The traveled person is tolerant. Race hatred grew up in the days of the pack mule and the ox cart and of the watertight compartments of mountainous regions where every peak meant a different language. The morbid war spirit of Europe could probably not survive a month's vacation spent in a foreign country by every citizen. An American public man, it is said, once begged that he be not introduced to an enemy, for he said he

could not hate anybody with whom he became acquainted. The flood of ideas which is brought against preconceptions through travel represents a thought-compelling situation of the greatest significance. The acceleration of progress which this age witnesses is in no small degree the outcome of the fact that of late, for the first time since history dawned, men have been able freely to visit new scenes and far countries. Individual travel should by all means be made universally possible through the widest opening of the gates of transportation.

THE LIMITS OF ATTENTION

Psychologists have demonstrated the fact, which anyone may verify, that the attention may be focused upon a given point for but a few seconds. Let the mind be directed to a given object, and it is found that the actual attention plays over a multitude of minor aspects or darts away to remote considerations, to return perhaps in a twinkling; but at no time does attention really stick to a given phase of the object for more than a few seconds. When we say that we give perfect attention for an hour, it is not to be inferred that our attention has been unvarying, but it is rather the case that our thoughts have been directed to one large subject with its associated details.

Why we possess a nerve apparatus which functions in this type of attention is evident upon a moment's consideration. In the ceaseless war of the lower world the animal that was not alert to every significant stimulus was likely to lose its life. The eye became trained to flit to every point from which danger might arise, and the mind followed the eye. Attention is a mental trait whose character is derived from the nature of the surroundings which have pressed upon the organism during the clockless depths of time. Every quivering leaf in heated jungles now converted into coal, every prowling beast stirring the reeds, every dancing gnat, every rush of wings tended to break into bits the consciousness of our prehuman forbears, and through inheritance to give the average mind a power of attention somewhere between the inconsequential zigzag of the phrase talker and the philosopher's

stuck-fast consciousness, miscalled absent-mindedness, but on the whole a distinctly unstable type of attention.

Now the fact that the power of human attention, even in its highest development, is selective, partial, variable, and hopelessly and forever short of that simultaneous and comprehensive consciousness of all events present and past which has been imputed only to deity, has a multitude of bearings upon the affairs of civilized society and especially must be reckoned with in laying the foundations for achieving social welfare. How frail a remedy, for example, against the "malefactors of great wealth" would be the proposed remedy of publicity taking the form of social ostracism. Attention flags, and our grievances are short-lived. Even the drama has retired the delayed-retribution motive and no longer asks the audience to follow a character who bides his time for a quarter of a century and brings his enmity rank to the tragedy just before the curtain falls. Attention shifted so rapidly at the close of the Civil War that the wind went out of the sails of revenge.

In the first place we simply cannot give our attention to a wide range of matters, past or present, and any exhortation to the public to give its attention beyond the normal stretch is futile. Governmental complexities soon must pass beyond the unaided attention of the great majority of citizens; if a vast deal more of attention must be given by the citizen to details of government while engrossed in his personal affairs then we have come to about the end of the rope. The limitations of memory and attention must be acknowledged with scientific frankness and efforts to prod our millions into an abnormal attitude of mental strain abandoned, and in their place must be substituted schemes by which the rational ordering of society for general betterment may be brought about in conformity with the laws of the human mind. When aroused by flagrant abuses or shocking imposition the citizen and the reformer feel that such will never occur again; the affair is burning-white in the center of aroused attention, but as it is said, the people soon "go to sleep," which indeed is perfectly natural. And within a month the gas company is again selling air, and the food manufacturer while perhaps removing benzoate of soda puts his goods in smaller containers at a higher price. The public cannot give

its attention in detail to all its public affairs, and plans of social improvement that rest on such assumption simply delay the sort of progress that rests on human factors. We have seen public attention swing ponderously in recent years from one issue to another, and while one evil was under attack others were escaping.

The public, like the individual, frequently thinks it is giving its attention more fully than is really the case. Let one try to recall what he had for dinner yesterday or try to list his expenses for the past week; the events that one does remember give a fallacious sense of the fulness of recollection, but upon close investigation it is found that thousands and thousands of items and incidents have gone down with scarce a bubble on the surface. Indeed the normal feeling is that one who is consistently attentive, as to the single tax or the physical valuation of railroads, is a crank—he is a person of “one idea.”

The popular mind shows the same kind of variability exhibited in the individual who is absorbed in one topic this week and in another the next. Today it is the Dayton flood or a Billy Sunday revival and tomorrow oil wells or the Poughkeepsie regatta, but always a singularly piecemeal consciousness. Even a three-ring circus is too much for any one patron. When one's business expands one is sure to neglect some part of it. The press reflects the fickleness of attention. For a period a piece of big news throws its shadow across many columns, then to be succeeded by another equally engrossing subject. The influential criminal wins delays, and when his case is finally disposed of the echoes of the former outcry have died away. Congress attacks its problems seriatim. Immigration, the parcel post, rate regulation, rural credits, the trust question, all have their day and cease to be; one waits on another, and all wait on the tariff—the tariff has been a colossal sponge licking up the consciousness of the public for a third of a century while hundreds of issues have waited to be heard. There are cases where issues have been raised to divert the public mind on the principle enunciated by Josh Billings: “Tight boots make a man forget all his other troubles.”

In appraising, then, the mental factors which must be employed in social reconstruction, it is well to recognize these limits. In

private affairs the individual is likely to develop a system for jogging his memory; he may tie a string in a buttonhole, or place a pencil in his left shoe the night before; he knows his frailty, and perhaps thinks other people are not so—but they are. There is need of a system of memory jogging for the public with reference to public business. At any rate let note be taken of the limits of attention as a fact to be considered when public welfare is sought to be promoted. This feature of mentality should be recognized in a far more effective system of publicity for governmental affairs and the utilization of special agencies by which the variable consciousness of the public may be brought back again and again to matters of import.

A flitting attention has its chief function in bearing to consciousness information needed to keep one in adjustment to physical surroundings. One must notice a drop in temperature, the smell of escaping gas, and a thousand stimuli which are significant for personal safety. But the inherited and confirmed tendency rapidly to shift the mental eye is a fundamental disqualification for concentrating thought upon abstruse problems, while the completeness with which one idea dispossesses another and one topic forces another out of mind suggests that special measures be employed for marshaling thought for civic ends.

FORMS OF DISTRACTION

A fact which has a bearing upon the improbability of society is that the individual has only a certain amount of energy and that if this is drained for physical purposes there is a shortage for mental processes. Mental and motor activity are, of course, closely joined; without motor expression mentality is not clearly defined; thought is generated and quickened by demands upon the muscles, and physical and mental training have much in common. But nevertheless the balance between typically physical and mental activities is easily disturbed, and the outlook for a higher civilization is in no slight measure concerned with the extent to which motor expression unnecessarily obtrudes and consumes energies otherwise more effectively employed.

That there is a conflict between intellectual and physical employments is evident. The housewife, busy with a wide range of manual activities, not only often does not find time to read, but even when time is found discovers that her mental grasp is disappointing. Days of toil in the field dispose rather to torpor and slumber than to thought. At Brook Farm the author of *The Blithedale Romance* learned that there is an inconsistency between meditation and hoeing corn. So protected must be the easily blown-out flame of attention and thought that, with many mere sense stimulations, as a rattling window, a fly buzzing in the pane, the infrequent beating of a distant door, or street sounds quite interrupt these processes; for which considerations, perhaps, philosophers are associated with the desert and divers authors "take to the woods." The splendor of the intellectual life of England has been ascribed to the existence of a leisure class, The leisure represented by the school is the very foundation of civilization.

The evolution away from big bodies and small brains, of the age of the dinotherium and the mammoth, is presumably paralleled in mankind by an evolution away from mere muscle and toward rational attainments. Accordingly, the shortening of hours of labor, the providing of vacations universally, the substitution of machinery, and the guarding of the years of youth and of leisure in maturity are of the utmost meaning for progress. Under slave and factory conditions the absorption of energy in motor uses is often so complete that mentality can hardly appear, and even in the intelligent farming class interminable hours of work and "chores" so sop up the nervous forces that few in this occupation have been found with the mental activity required for the leadership of country life. We properly distinguish between brain work and other work, and only by holding down physical labor to a moderate maximum may there exist generally throughout society the alert mentality which the social vision requires. The great majority of people do not regularly find time to read and think, and so when an unexpected leisure occurs there is little preparation for making the most of it. As a result the physical laborer is likely to spend his odd hours sharpening his pocket knife or wandering

aimlessly about in the woods or fields subject only to the minimum stimulations of raw nature.

The time necessarily spent in taking care of the body reaches an immense total. The man who spends twenty minutes a day shaving, between the ages of twenty and seventy, thus consumes more than two years of eight-hour days. People who fast report a remarkable lengthening of the day, for no small percentage of one's waking hours is spent in eating. "The raveled sleeve of care" may indeed be well knit up by sleep, for twenty-three years of man's three score and ten are spent in slumber. Sunday is a day of rest, and there are ten years of Sundays in seventy years of life.

The political sagacity of a people who in the majority spend nearly all their time in physical activities is sure to be disappointing. The slave owner of the South opposed the teaching of slaves to read, realizing its stimulating effects. But "free" labor may be so arduous that the benefits of reading are but slightly realized. Probably the immense majority of adults in the United States do not read a book a year, and many who take papers do not find time to read them. Included in the non-reading public are five and one-half million persons in the United States, over ten years of age, who are illiterate. "In double line of march, at intervals of three feet, these 5,516,163 illiterate persons would extend over a distance of 1,567 miles. Marching at the rate of twenty-five miles a day, it would require more than two months for them to pass a given point."¹ It is indeed a wonder that political progress is making so rapidly when so few have opportunity for intellectual development and the obtaining of appropriate information. The factory hand who reaches home tired late in the day is in no condition to weigh political theories or follow the lines of thought in the more profitable articles of the day. A more just division of time between physical and intellectual exercises must be attained. Democracy implies a reasonable universal leisure.

But leisure does not insure against a disproportionate devotion of energy to the physical. While health, recreation, and valuable social training are promoted by participation in sports and games, athletic activities may become an obsession and displace other

¹ U.S. Bureau of Education, *Bulletin No. 20*, 1913.

important interests. Athletic training finds its warrant in developing a good body as a basis for moral and intellectual possibilities. Knobby muscles and Herculean physique are unwisely exalted when standards are set up which in effect discriminate against mentality in favor of "beef." It is indeed a confession of the impotence of the intellectual appeal of universities when it is argued that without militant football the energies of the student body would turn to vice, for which the pigskin is a prophylactic.

The absorption of energy in motor interests takes a peculiarly degenerate turn in the riotous abandon of enthusiasm displayed on the "bleachers," where neither the benefit of actual exercise nor the stimulus of mental effort is experienced. The significant term, "rooting," represents a phase of American life of more than passing importance. When 30,000 people "go wild" at a ball game which settles no issues and involves no uplift, and when "fannism" is the principal avocation of multitudes of voters whose vocations are in many cases those of office routine or are narrowly mechanical, it is to be doubted whether commercialized sports are an unmixed blessing. Divided thus between vocation and avocation, is it any wonder that it has taken the people of the United States a quarter of a century to secure a pure food law, and that the people's Congress is styled by Mr. H. G. Wells as the "feeblest, least accessible, and most inefficient central government of any civilized nation west of Russia?" Any interest may acquire an abnormal development, and physical expression not rarely passes moderate bounds, and consumes nerve forces which would otherwise be available for grappling with the problems of the age. Attention may be deflected from social issues by athletic propaganda, as witness the recent promotion by the Russian government of sports and games with a view to counteracting radical tendencies among young people. One cannot attend to several things at the same time, and if a youth is "baseball crazy" he is not likely to worry over the evils of absolutism. One has only to listen to conversation to be convinced that the procession of athletic topics throughout the year, chronicled in acres of print, has a tremendous diverting effect upon public intelligence. The reader will be able to call to mind cases of individuals whose

mentality is perpetually dissipated through attention to this ever-recurring sensationalism.

Passing to a different phase of life, the dominance of the sex interest must be recognized. Of all the innate interests sex is the dominant one, radiating through the whole social structure the heat and light of a primal force. The aim of life, biologically, is reproduction. There is a sex element, accordingly, in all activities and relationships. Mating-psychology looms large in human nature and is an element to be reckoned with in appraising forces available for the improvement of society. Robert Burns wrote many songs, but the socially reconstructive "A man's a man for a' that" stands alone; more characteristic,

Oh, my luv'e's like a red, red rose
That's newly sprung in June.

The mating instinct influences the rate of progress, especially as it may acquire abnormal recognition and represent an undue absorption of attention. While it would not be well to join too heartily in deploring with the poet "The time I've lost in wooing," yet one is impressed with the immense deflection of thought from social issues which artificially stimulated sex interests entail. It is only under ideals of gossip sensationalism and by means of modern facilities for diffusing ideas that the attention of millions could be almost exclusively fixed upon an unsavory criminal action or centered upon newspaper discussions of a dubious picture. If unsupplied with suitable culture materials and exposed to protean suggestion, the individual may attain a sensuality of outlook probably unparalleled in savagery. Society in its collective wisdom may well concern itself with the character of the channels through which mentality finds expression. What ideas enter the mind is of radical significance, for interests may be caused to grow or to wither. It is accordingly a vital question whether public attention is excessively directed to sex.

While the drama of human life extends vastly beyond early love affairs or the maladjustments of marriage, nevertheless mating is ingeniously exploited and made the central subject of popular literature, as the "best sellers" bear witness. Despite the fact that millions of people have suitably adjusted their connubial relations,

the printing presses are clogged with the literature of mating, and heads of families who venture betimes to the theater are regaled with eroticism. It is demonstrable that the post-adolescent years abound in an exhaustless supply of materials for novel and drama, but that themes from this fruition period of experience are effectually displaced is evident.

Possibly the delayed age of marriage has much to do with the preponderant attractiveness of the mating theme and its consequent financial exploitation. Be this as it may, the problems of the years that follow the heyday of youth should not be unceremoniously put to rout, nor should the forces which might energize social betterment be dissipated in a promoted and protracted absorption in sex themes. If in Russia the edge of revolution may be turned by the inspired circulation of pornographic literature, it is evident that there is loss in the obtrusion of sex sentimentalism into thought-currents. The attention of thousands is consumed at popular entertainments where whole evenings are devoted to "numbers," musical or otherwise, in which the mating theme is worn to shreds, and not the slightest impulse is given to creative thought in any direction. Time thus spent may be absolutely crossed off the records so far as progress is concerned.

The biological impulsions to mating would hardly of themselves excresce into obstructions to progress were efforts not inspired by commercial motives to play upon sex inclination. Advertising seizes upon this interest, even to the distraction of thought from the merits of goods advertised. For example, a men's clothing advertisement on a billboard represented a young woman dressed in a man's suit; eight young men, the number interrogated, testified that they did not notice the brand of clothes advertised, their attention being given solely to the illustration. Society is familiar with the idea of commercialized vice, but there is also, from the viewpoint of energizing progress, a problem arising from the unrestrained commercial exploitation of sex interest through a multitude of appeals in advertisements of travel, personal belongings, beers, and cigarettes. An obsession of sex interest is readily developed, abetted by trade, the sentimental song, the problem play, and sensational journalism.

A feature of mating whose social significance can hardly be exaggerated is dress. The burden placed upon woman, rather than upon man, of attracting the other sex—in the lower animals a burden borne by the male—is deplored by Mrs. Gilman.¹ In any case woman has largely assumed the load of sex ornament, and it is a heavy one. Not only during the mating age proper does the “sex vanity” of dress nearly monopolize attention, but as well quite commonly for a longer period, either because mating is not a closed incident or because of the vitality of a strong interest, transferred to rivalry in jewels, equipage, and pursuit of fashion. The volume of interest and intelligence thus prevented from being directly available, not only for the improvement of the status of woman, but for general social betterment, is enormous. Observe the thought-currents of the chance feminine group or of the tense Easter assemblage, and note how often hardly a rill of intellectuality flows out toward the world’s wider movements. Great amounts of “crystallized labor,” which is capital, are Moloched to fashion, and vast energies are thus lost to constructive social effort.

An acceleration of progressive movements would doubtless follow the adoption of more uniform dress, while such economic readjustments as would permit marriage at an earlier age in certain classes would tend to enlist interests in the larger social issues. Surely commercialized suggestion merits disapproval. To build the ideal future requires the conservation of suitable ideas and a reasonable exaltation of other than sex topics.

Whatever occupies the public mind to the undue exclusion of public affairs may be set down as retarding the solution of the issues which lie at the threshold of rational civilization. Historically, the focusing of attention upon a future world, in which the evils of the present would disappear without human effort, proved an unwitting ally of temporal injustice. The expectation that the world would come to an end in the year 1000 had a paralyzing effect upon the energies of Europe. Wherever injustice has been passively endured because of faith, injustice has become more firmly rooted. Hence the vast importance of the newer viewpoint which assumes that one is his brother’s keeper and that the highest

¹ *The Man-made World.*

ideals of religion are to be exemplified in current human relationships. In the new drift of religious thought there is the promise of unprecedented social betterment, for an immense volume of feeling and will, at one time not so active a reform force, now supplies motive power for progress.

The intellectual capital of the world consists largely of people's interests; and these are subject to modification; they may be enlarged or diminished, and new interests may be developed. It is highly important, this, what people are interested in, because there is no doubt but that people may readily become interested in the best things. While there is a substratum of permanent tendencies, one is nevertheless susceptible to extensive redirection.

The interests which characterize the public today are often criticized as trivial and unworthy. A writer ventures the following as a truthful list of the great "interests" which make up American life: (1) the ticker; (2) female apparel; (3) baseball bulletin; (4) the "movies"; (5) bridge whist; (6) turkey trotting; (7) yellow journal headlines and "funny" pages; (8) the prize fight. And the estimate is made that 100,000 Americans are genuinely interested in the foregoing matters to every 5,000 who are interested in politics and to every 1,000 who are interested in education.¹

This list is not a highly creditable one, and it is not one that speaks hopefully of the ability of the people to inject intelligence into the social process and achieve reforms of government. As long as such interests dominate there can be but an imperfect base for democracy. But it may be that these interests are receiving a hothouse culture or that they represent but frivolous moods. There are solidier elements in human nature, to which appeal may not be made in vain.

THE EFFECT OF MACHINERY UPON THE MIND

The most obvious aspect of the use of machinery is that it frees muscle and shifts a tremendous burden from flesh and bone. An immense amount of heavy, grinding work has been transferred to inanimate forces and nerveless matter. This is a great gain; in the first place because of the increase of production. The average

¹ *The Independent*, April 17, 1913.

man today, through the use of machinery, produces twenty times as much as was produced by the average man 250 years ago. When farmers cradled their wheat, bound it by hand, and threshed with flails, the operations required for one bushel of wheat the labor of one man for an average time of 183 minutes. With labor-saving machinery, the modern farmer can do the same work in 10 minutes. Seventy-five years ago, 66 hours of labor were expended on an acre of oats, whereas the labor time is now but $7\frac{1}{10}$ hours. Modern civilization rests upon an increase of wealth traceable to the industrial revolution and a machine era. Libraries, universities, assemblies, the press, and other agencies of enlightenment rest squarely upon the machine, which enables mankind to realize a higher culture. The educated and leisured classes owe their emancipation to an easier production of wealth.

Time and energy are afforded for intellectual pursuits. Heavy physical labor is incompatible with mental exercise. A long working day leaves small energy for brain activity. When to feed, clothe, and provide shelter for the world required unceasing toil, the masses could not be expected to develop a thought-life. A certain amount of physical activity conduces to mental development, but there is ample evidence that motor employments have an arresting effect. Larger and larger numbers enjoy the possibility of exemption from the deadening effects of severe physical toil, a fact which throws a most favorable light upon a machine age. There is mental bondage where there is muscle bondage. The long-continued existence of a near-slave status on the part of women finds a partial explanation in the fact that household labor has been hand labor and that it has been excessive.

Not only is energy released for mental development, but efforts to provide new devices and improvements are distinctly stimulating, and a remarkable intelligence appears in a limited class. Here is a field which has furnished large incentives for active intelligence; not only in mechanical invention, but in repair and regulation, is a resourceful mind called for. A considerable body of men are employed in thus dealing intelligently with motor vehicles, power machinery, typesetting machines, and the like, and in the installation and regulation of all sorts of manufacturing equipment.

This sort of activity stimulates intelligence, though it must be conceded in all fairness that the mechanical genius or the expert repair man may be unlearned in philosophy, ignorant of political science, unacquainted with history, and destitute of an appreciation of poetry; but for all that, his intelligence is quickened and all he now needs is concrete instruction along other than mechanical lines. He has undergone cerebral stimulation; he has learned how to think and to adapt himself; he can seize upon a problem. A dull person would find himself very much out of place installing dynamos or repairing microscopes. The skilled mechanic may have his limitations in liberal culture and sociological insight, but he has real problems to face and he meets them successfully. The plumber who is called in consultation upon an inadequate heating system is quite as professional for the time as the physician called to deal with sudden illness. The farmer who buys a new windmill, a wild-oats separator, or a milking machine is made to take a learning attitude. A piece of machinery that will not work, may nearly if not quite duplicate the unparalleled educational situation represented by a balky horse. No people can remain entirely uncivilized if visited by salesmen of modern appliances, subjected to the instruction of innumerable advertisements, circulars, and pamphlets, and impelled by the necessity of knowing how to operate the contrivance when once it has been purchased.

Under certain conditions machinery has a stimulating effect upon intelligence. It presents problems to be solved; it necessitates a concentration of attention; it constitutes a new world for mankind and represents a complexity which compels thought. To keep in proper adjustment to this mechanical environment requires a degree of mental alertness. There has been upreared on the earth an artificial environment which taxes attention and thought in a way no less real than in the case of nature. It is not to be inferred, however, that such effect of machinery is to educate for civic or social relations. In estimating the general culture of the individual, it is quite fitting to look principally to his preparation for comprehensive social relationships, and while the skilled workman is often a highly intelligent citizen and voter, or, as in

Germany, perhaps a philosophizing socialist, yet various phases of intellectual life are doubtless but indirectly if at all favorably affected by mechanical training.

But to turn to a very different class of people, a very large class, compared to whom the creative mechanics are but a drop in the bucket—the operatives—we find that machinery has its bad effects. The operative who performs but a mere repetition of movements is subjected to about the worst possible influence from the standpoint of mental development. It is true, of course, that motor activity, as in manual training, has a stimulating effect, but just as soon as movements become habitual, mental development therefrom ceases. It is educative to learn to drive a nail, but when the driving of a nail is performed automatically as the result of practice, it ceases to be thought-provoking. Manual training is an important adjunct of the educational system, viewed simply from the point of view of mental development; but when the exercises are fully learned the individual must pass on to new situations or suffer an arrest of development. Machine production tends toward a minute division of labor and a specialization inconsistent with the mental welfare of the operative. There are over four hundred and fifty operations in the making of the upper of a shoe and each of these is performed by a different man in a well-run shop. Such division of labor results in an intense monotony on the part of the workman. The whole manufacturing world is adjusted to such specialization, the peculiar value of which is that it tends toward increased production. No one has ever argued that the individual was benefited by doing work under the conditions of intense specialization and rigid routine. "When mind becomes mechanical," says President Hibben, of Princeton, "it is departing radically from its essential source as a living organism. It depends wholly upon the manner in which we treat the mind whether it retains its vital character or becomes a mere machine."

Employers and employed unite in the view that routine is undesirable from the individual standpoint. Long subjected to unvarying employment, the individual loses initiative, spirit, and will-power. His work is planned for him by someone else and a limited range of physical movements engrosses attention. Such conditions are inevitably stupefying. The operative becomes a

mere adjunct to his machine. All except the most elementary forms of reasoning are dispensed with. Consciousness sinks to a low level and the lower centers govern responses. Especially are the results harmful when there is speeding up and the individual is left with no surplus energy.

Mr. Frederick W. Taylor, author of works on scientific management, made the following statement before a special committee of the House of Representatives:

I think this tendency of training toward specializing the work is true of all managements, for the reason that a man becomes more productive when working at his specialty, and while it is deplorable in certain ways (there is no question about it, there are various elements in this specialization that are deplorable), still the prosperity of the world and the development of the world—the fact that the average workman in this day lives as well as kings lived 250 years ago—that fact is due to a certain extent to just this very specialization.

This statement by the high priest of scientific management indicates that production, instead of the welfare of the workman, proceeds from mechanical specialization.

A recent magazine interview with Henry Ford, of the Ford Motor Company, runs as follows:

“You put the man at a machine, teach him to control it, and he stands there weeks and months and years mechanically producing one trifling thing. How does that affect him temperamentally?”

“It drives him crazy,” said Ford, positively, as he had said everything else. “But we see to it that a man does not do one thing too long. We keep him moving through the shop.”

The effect which Mr. Ford deliberately seeks to avoid is one which prevails almost universally. The state of the machine-tender is authoritatively described by Mr. Samuel Gompers, president of the American Federation of Labor. Mr. Gompers says:

Wage-workers in factory occupations tend machines, and by tending of such machines do not have the opportunity of making or completing any part of the whole, but only perform a minute and infinitesimal part of a part. As a consequence, the people who gain their livelihood by tending such machines become automata. They become part of a machine—thoughtless and spiritless to such a degree that they are unable to do the slightest thing, or perform in any way to their own advantage, or to the advantage of their employer, unless they have a prompter at their side in the shape of a planning master, a foreman, or a boss of some other title.

It is the most pronounced in the textile industries—silk, wool, cotton, cordage, jute, etc.—the novelty industries—watch making, furniture manufactures, paper making, and many other of our basic industries.

Some American employers have commenced to see what a dilemma they are facing for men and women capable of directing their departments and divisions of departments. They have brought down upon their own heads the alarming situation of working for profit to such an extent that they have neglected to train men and women to take responsible official positions of administrative capacity in their own factories, and such manufacturers have at last commenced to appreciate the foresight of the American Federation of Labor in its efforts to establish vocational education and national trade training schools by federal aid in all of the states.

It stands to reason that, if men and women are reduced by force of circumstances, and through the folly of certain so-called efficiency systems promulgated in recent years by fanatics on that subject, like Messrs. Taylor, Gant, Emerson, Harrington, and others, the workers in our industries will be deprived of all opportunities to develop mentally or physically, because when the aspirations of men and women are submerged and stunted they become dependent upon the whim, the will, the direction of a superior, and there is nothing left to them but merely to become docile, obedient, willing servants. Such a situation is not only degrading to the individual, but is a menace to society.

Machine production is characterized not only by specialization and monotony, but by the centralization of intelligence in officers and overseers. There is a division of labor as between the physical and mental aspects of industry. The board of directors, the superintendent, and the boss largely monopolize the function of direction, while the employee takes orders and follows rules. The logical result of this is the creation of intellectual classes. The worker loses his power to initiate and to think, while on the side of the management there is a signal development of ability. A parallel case is that of officers and men in the army. It is the officer who undergoes mental development; it is the private who becomes a machine. Military obedience results in physical and in mental traits which are to a high degree mechanical. It is only too true that the well-drilled company or regiment is a machine; that is a peculiar condemnation of a military system.

Theirs not to reason why,
Theirs but to do and die.

It may be a good investment from the standpoint of production that the superintendent should do the thinking, but looking at it

from the social point of view, it is disastrous. Especially in a democracy is the importance of widely diffused ability to solve problems to be emphasized. The increasing automatism of modern industry has in itself a power to create castes based upon intellectual traits.

Routine-afflicted operatives are dumb driven cattle before the political trickster and the domineering employer. The fact that after a century of factory conditions the successive generations of workers have been unable effectively to propose political and economic remedies for appalling industrial conditions and must still employ the self-defeating and short-sighted strike method is convincing evidence of a mental arrest which a factory dispensation encourages.

It is possible, of course, that the workman may be so privileged, as in the case of the Ford system, that the full force of a deadening routine would be avoided. The shortening of hours of labor, provision for recreation, avoidance of fatigue, and stimulating experiences outside of working hours might successfully be employed as an offset.

But too often such human considerations enter but slightly into the wage relation in manufacturing enterprises. Not rarely employers have desired workmen to be content under an injurious monotony. They have desired employees who were tractable and mechanized. An eastern manufacturer complained to President Harvey, of the Stout school at Menominee, Wis., that his experience with the graduates of certain industrial schools had been unsatisfactory. He said that boys whom he had employed from the schools were not contented when doing the kind of work he wanted done; as soon as the boys mastered certain processes they were anxious to go to something else and to rise, whereas he wanted workmen to "stay put." President Harvey replied that it was not the purpose of his institution to train boys who would "stay put." Along with the enormous social justification for trade schools, there is without any doubt, in certain quarters, a desire to use these as a tail to a dividend kite. The importance of vocational education is indeed great, but it should be guarded from the designs of employers who are interested in the workman only as a producer. The boy educated as a workman should also be

educated for rising in his calling, and receive instruction which would make him capable of expressing himself effectively through government and of sharing in the fund of modern thought and culture.

There is evidence that less and less intelligence is called for in certain industrial positions, and that the demand is for many unskilled or narrowly skilled and for only a few really intelligent workers. Glass making at one time required skill and intelligence; but machinery is being introduced which dispenses with these qualities. With the introduction of improved machinery, a lower grade of labor is utilized in steel making and in mining. The very perfection of machinery tends to lessen the importance of really capable workmen. It is an urgent problem of society to utilize to the full the vast benefits of machinery and to minimize the deadening effects of industrial service. In industry as now ordered mental welfare is unthought of. Personal development remains to be promoted through labor-autonomy, the rotation of processes, and the recognition at every point of psychological factors.

The effect of machinery, however, is not limited to its influence upon the factory employee, but has a bearing upon occupations in general. The machine era has resulted in the development of a very large number of employments which are in a high degree mechanized. A division of labor originating in factory conditions and based upon industrial concepts is carried out into practically all fields of enterprise. There result many occupations or jobs which are essentially as monotonous as that of watching a loom or pasting labels. Routine characterizes an increasing number of employments. Take, for example, the work of a railway postal clerk. On certain runs the names of as many as eight or nine thousand post-offices must be borne in mind, together with forenoon and afternoon connections. Constant diligence is required to maintain efficiency; as a result, the postal clerk is thoroughly mechanized. An intelligent man who recently left the service contributes some interesting information on the effects of the system upon the individual. He testifies that the service narrowly limits the range of one's mental activities. The subjects discussed in off-hours are likely to pertain only to the technicalities of mail distribution. Conversation is confined to the details of the business, "Probably a man would know who was President of the United

States," said he, "but that is about all." This occupation is merely typical; in many others similar tendencies are discernible.

The sufficiency of one's intelligence comes to be popularly judged by its sufficiency in a routine employment. One feels no humiliation in confessing ignorance in regard to a multitude of matters if they are not in his line. There is a possibility that such modesty may become altogether too widespread and confirmed. One who aspires to general information is old-fashioned. One may safely blink ignorantly at thousands of marvels provided he has the requisite information pertaining to a specialty. It requires a syndicate to deal with any project having a variety of aspects. We insist upon having most of our thinking done by somebody else. The possible future development of this peculiarity of modern life constitutes a fascinating appeal to the imagination. Are we destined to evolve a society in which, first, the individual will be limited in range of information and in mental activity, and, secondly, become destitute of the power of self-direction and, like the fully automatized bee, as described by Maeterlinck, be absorbed in the spirit of the hive, whose organization and nature are far beyond conscious intelligence? Is the complexity of our industrial and social structure passing beyond the possibilities of the individual mind? The field of information which is occupied by all in common is narrowing and the apportionment of the intellectual world becomes more and more definite and minute.

An interesting phase of modern environment is that represented by the fool-proof machine. A multitude of such appliances are put on the market. Consider, for example, the automobile. Most of these machines are run by people whose ideas of the essential parts are about as clear as they are of darkest Africa or of the nervous system of a starfish. A public official in a western state who had run a machine for years, upon seeing the chassis of a car in an engineering laboratory, was full of wonder and admitted that he knew nothing about how his machine was made. People ride in street cars who have but the most airy conception of a trolley system. How many cooks have an adequate understanding of the principles of the modern range? The office-building elevator is accepted with that lack of wonder which Carlyle described in connection with a second rising of the sun.

A modern city with its telephone lines, its water supply, its sewer system, its electrical distribution, and its subways, is seen in its mechanical wonderfulness only by a discerning few. Those who plan and organize profit by an intellectual stimulation; but those whose only interest is convenience, those out of respect for whom fool-proofing is done, go scot free of even the slightest cerebral excitement. A coffee percolator turns out a uniform product for one who can watch a clock; even the flame will be shut off at the proper time so that the user need exert himself mentally only to the extent of stirring in the sugar. Prosperous young people and often their elders, too, for that matter, exhibit an innocent composure apparently never disturbed by any disposition to resolve the problems of their mechanical environment or to go behind a luxurious adjustment to perfected conveniences.

There is no question but that one may be made inquisitive, curious, inventive, or indifferent, dulled, and conventional, by environment. We know that the level of intelligence in society may be greatly raised or lowered according to culture conditions and of these conditions machinery represents one of the most potent. If in large sections of the population there is a dementing, this fact becomes of great importance, for the need of initiative and self-dependence is surely great. The social order should lend itself to the development and availability of the highest possible intelligence. While the production of wealth is of great and fundamental importance, it is of less importance than the preservation of conditions favorable to the development of every individual, and indeed in the long run even the production of wealth must be guaranteed by preserving the most favorable conditions of individual development. Society does not profit most by people who are routine slaves, dulled, regimented, and automatized. Democracy requires that the average man should be a thinker. Skilled craftsmanship or drudging labor may alike be divorced from general ability and vital knowledge and from those mental traits and habits which are necessary for the good of a people, while the spread of a routine throughout all sorts of occupations and the slight demand for intelligence in the operation of perfected devices alike constitute a dementing circumstance.

[To be continued]